This bulletin contains only a handful of changes to the 2009 IRC and UPC along with previously listed changes to the 2006 Codes. All plans submitted as of July 1, 2010 shall comply with the 2009 Codes.

As part of the adoption of both the 2006 and 2009 International Residential Code (IRC), Base Plan holders were not required to update their plans. Base Plans established under the 2003 and 2006 IRC may continue to be used but must comply with the 2009 Code.

A list of most of the changes found in the 2009 Edition of the IRC can be found on line at:

http://www.piercecountywa.org/pals


**Base Plan holders are required to comply with the 2009 Code changes.**

**WAC-202 Attic Habitable.** A conditioned area not considered a story, complying with all of the following requirements:

1. The occupiable floor area is at least 70 square feet (6.5m²) in accordance with section R304,
2. The occupiable floor area has a ceiling height in accordance with Section R305, and
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides, and floor-ceiling assembly below.

**WAC-202 Fire Separation Distance.** The distance measured from the foundation wall or face of the wall framing, which ever is closer, to one of the following:

1. To the closest interior lot line; or
2. To the centerline of a street, an alley or public way; or
3. To an imaginary line between two buildings on the lot.

The distance shall be measured at a right angle from the wall.

**R302 Fire-Resistant Construction.**

R302.1 Exterior walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1.
WAC - Table R302.1

Exterior Walls

<table>
<thead>
<tr>
<th>EXTERIOR WALL ELEMENTS</th>
<th>MINIMUM FIRE-RESISTANCE RATING</th>
<th>MINIMUM FIRE SEPARATION DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Fire-resistant rated)</td>
<td>1 hour-tested in accordance with ASTM E 119 or UL with exposure from both sides</td>
<td>&lt;5 feet</td>
</tr>
<tr>
<td>(Not Fire –resistant rated)</td>
<td>0 hours</td>
<td>≥ 5 feet</td>
</tr>
<tr>
<td>Projections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Fire-resistant rated)</td>
<td>1 hour on the underside a, b</td>
<td>≥ 2 feet to 5 feet</td>
</tr>
<tr>
<td>(Not Fire –resistant rated)</td>
<td>0 hours</td>
<td>5 feet</td>
</tr>
<tr>
<td>Openings in walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not allowed</td>
<td>N/A</td>
<td>&lt;3 feet</td>
</tr>
<tr>
<td>25% maximum of wall area</td>
<td>0 hours</td>
<td>3 feet</td>
</tr>
<tr>
<td>Unlimited</td>
<td>0 hours</td>
<td>5 feet</td>
</tr>
<tr>
<td>Penetrations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>Comply with Section R302.4</td>
<td>&lt; 5 feet</td>
</tr>
<tr>
<td></td>
<td>None required</td>
<td>5 feet</td>
</tr>
</tbody>
</table>

For IS: 1 foot = 304.8 mm. N/A = Not Applicable

a. Roof eave fire-resistant rating shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.
b. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided no gable vent openings are installed.

**WAC R302.2.1 Continuity Fire Separation Townhouses.** The fire-resistant wall separating townhouses must be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures.

Where a story extend beyond the exterior wall of a story below:

1. The fire-resistance-rated wall or assembly shall extend to the outside edge of the upper story; or
2. The underside of the exposed floor-ceiling assembly shall be protected as required for projections in Section R302.

**WAC-R302.2.4 Structural Independence.** Each individual townhouse shall be structurally independent.

**Exceptions:**

1. Foundation supporting exterior walls or common walls.
2. Structural roof and wall sheathing from each unit may be fastened to the common wall framing.
3. Nonstructural wall roof coverings.
4. Flashing at termination of roof covering over common wall.
5. Townhouse separated by a common 2-hr fire-resistance-rated wall as provided by Section R302.2.
6. Floor sheathing may be fastened to the floor framing of both units.

**R302.3 Fire Separation – Two family dwellings.** Fire-resistive protection is now allowed at the ceiling line of each unit instead of the wall line in the attic.
R303.6.1 Light Activation at Stairways. Only where a stairway has six or more risers, there must be a wall switch at each floor level to control the lighting outlet.

R305.1 Bathrooms shall have a minimum ceiling height of 6 feet 8 inches (2032 mm) at the center of the front clearance area for fixtures as shown in Figure R307.1. The ceiling height above fixtures shall be such that the fixture is capable of being used for its intended purpose.

R310.1 Emergency Escape and Rescue Openings. Basements, habitable attics and every sleeping room shall have at least one emergency escape and rescue opening.

Exception: Basements less than 200 sq ft in floor area used solely for mechanical purposes.

R310.5 Emergency Openings under Decks & Porches. Escape windows are allowed under decks and porches as long as the window can be fully opened and provides a path not less than 36 inches in height to a yard or court.

R311.7.5 Landings for Stairways. There shall be a floor or landing at the top and bottom of each stairway.

Exception: A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided the door does not swing over the stair.

R314.3 Smoke alarms shall be installed in the following locations:
1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall
be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

As determined by the Pierce County Building Official; for the use in IRC, Section 314.3, Sleeping Room is defined as: Any room used or that could be used as a sleeping room, excluding bath, kitchen, living, dining, media, bonus, and family rooms.

Sleeping rooms are generally of similar size as other bedrooms in the house. They are a separate room with a door and with or without a closet. Bonus rooms, often above the garage, shall be noted as non-sleeping on the plans and in the permit system comments.

WAC-R315.1 Carbon Monoxide Alarms. For new construction an approved carbon monoxide alarm shall be installed by January 1, 2011, outside of each separate sleeping area in the immediate vicinity of the bedroom in dwelling units. In a building where tenancy exists, the tenant shall maintain the CO alarm as specified by the manufacturer including replacement of the batteries.

WAC-R315.2 Existing Dwellings. Existing dwellings shall be equipped with carbon monoxide alarms legally occupied prior to July 1, 2010.

Exception: Owner-occupied detached one-family dwellings legally occupied prior to July 1, 2010.

R317.1, R202 Wood Decay Protection. New standards from the American Wood Preservers’ Association that apply equally everywhere. (Important for building suppliers)

R317.3.1 Fasteners for preservative-treated wood. Fasteners for preservative-treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Coating types and weights for connectors in contact with preservative-treated wood shall be in accordance with the connector manufacturer's recommendations. In the absence of manufacturer's recommendations, a minimum of ASTM A 653 type G185 zinc-coated galvanized steel, or equivalent, shall be used.

R317.1.5 Wood Decay Protection. Exposed Glued-laminated wood, if not protected by a roof or eave, must be preservative-treated.

R401.3 Drainage. Surface drainage shall grade away from the foundation, grade needs to be a minimum of 6 inches within the first 10 ft.

Exception: Where lot lines or physical barriers prevent, 6” in 10 ft., swales shall be constructed to ensure drainage away from the structure.

R403.1.6.1 Foundation Anchorage in Seismic Zones C, D(0), D(1), D(2). Plate washers, 3-inch by 3-inch, complying with 602.11.1 shall be provided for all anchor bolts over the full length of required braced wall lines except where approved straps are used. Properly sized cut washers shall be permitted for anchor bolts in wall lines not containing braced wall panels.

R406.1, R406.2 Foundation Dampproofing & Waterproofing. Dampproofing and waterproofing of concrete and masonry foundations required when enclosing habitable or usable storage space. (This does not include dirt crawl spaces.)
WAC R408.1, R408.2, R408.3 Under-floor Ventilation.

**Ventilation:** The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls.

**Openings:** Minimum net area of ventilation openings not less than 1 sq ft for each 300 sq ft of area and the vents must be screened/covered. One ventilation opening shall be within 3-feet of each corner.

**Exception:** One side of the building shall be permitted to have no openings.

R502.2.2.1 Deck ledger connection to band joist. For decks supporting a total design load of 50 pounds per square foot (2394 Pa) [40 pounds per square foot (1915 Pa) live load plus 10 pounds per square foot (479 Pa) dead load], the connection between a deck ledger of pressure preservative-treated Southern Pine, incised pressure-preservative-treated Hem-Fir or approved decay-resistant species, and a 2-inch (51 mm) nominal lumber band joist bearing on a sill plate or wall plate shall be constructed with 1/2-inch (12.7 m) lag screws or bolts with washers in accordance with Table R502.2.2.1. Lag screws, bolts and washers shall be hot-dipped galvanized or stainless steel.

R502.2.2.1.1 Placement of lag screws or bolts in deck ledgers. The lag screws or bolts shall be placed 2 inches (51 mm) in from the bottom or top of the deck ledgers and between 2 and 5-inches (51 and 127 mm) in from the ends. The lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger.

R502.2.2.2 Alternate deck ledger connections. Deck ledger connections not conforming to Table R502.2.2.1 shall be designed in accordance with accepted engineering practice. Girders supporting deck joists shall not be supported on deck ledgers or band joists. Deck ledgers shall not be supported on stone or masonry veneer.

R502.2.2.3 Deck lateral load connection. The lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with Figure R502.2.2.3. Hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1500 pounds (6672 N).

R502.2.2.4 Exterior wood/plastic composite deck boards. Wood/plastic composite deck boards shall be installed in accordance with the manufacturer's instructions.
R506.2.3 Vapor retarder. A 6 mil (0.006 inch; 152 µm) polyethylene or approved vapor retarder with joints lapped not less than 6-inches (152 mm) shall be placed between the concrete floor slab and the base course or the prepared subgrade where no base course exists. 

**Exception:** The vapor retarder may be omitted:

1. From detached garages, utility buildings and other unheated accessory structures.
2. For unheated storage rooms having an area of less than 70 square feet (6.5 m²) and carports.
3. From Driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date.
4. Where approved by the Building Official, based on local site conditions.

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 ga) and 1-1/2 inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1-1/2 inches (38 mm) at each side or equivalent. The metal tie must extend a minimum of 6-inches past the opening. See Figure R602.6.1.

R612.1 Window Installation. Window manufacturers must provide installation instructions. Installation must comply with the window’s installation instructions.

R612.2 Window sills. Where the opening of a window is located more than 72 inches above the exterior finished grade or surface below, the lowest part of the window’s clear opening must be a minimum of 24 inches above the finished floor of the room where the window is located. Glazing between the floor and 24 inches shall be fixed or have openings such that a 4-inch diameter sphere cannot pass through.

R702.4.2 Fiber-cement, fiber-mat reinforced cement, glass mat gypsum backers and fiber-reinforced gypsum backers. Fiber-cement, fiber-mat reinforced cement, glass mat gypsum backers or fiber-reinforced gypsum backers in compliance with ASTM C 1288, C 1325, C 1178 or C 1278, respectively, and installed in accordance with manufacturers’ recommendations shall be used as backers for wall tile in tub and shower areas and wall panels in shower areas.

R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8.

R703.2, R703.4 R703.6 Water Resistive barrier. Weather resistant changed to water-resistive barrier. Felt or other approved material required to be applied over exterior wall studs or sheathing must be continuous to the top of walls. Regardless of the type of siding or veneer or plaster, a water-resistive barrier is required. See Table R703.4.

R703.8 Flashing. Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:
1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage.
2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, wood or metal copings and sills.
4. Continuously above all projecting wood trim.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.

M 1502.4.5 Dryer duct length identification.
Where the exhaust duct is concealed within the building construction, the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located within 6-feet (1829 mm) of the exhaust duct connection.

M1502.5 Protection required. Protective shield plates shall be placed where nails or screws from finish or other work are likely to penetrate the clothes dryer exhaust duct. Shield plates shall be placed on the finished face of all framing members where there is less than 1-1/4 inches (32 mm) between the duct and the finished face of the framing member. Protective shield plates shall be constructed of steel, shall have a minimum thickness of 0.062-inch (1.6 mm) and shall extend a minimum of 2-inches (51 mm) above sole plates and below top plates.

M1508.2 Continuously Operating Exhaust Ventilation. Ventilation rates were previously in the 2006 VIAQ. Table M1508.2 has substantial changes from VIAQ Table 3-2.

<table>
<thead>
<tr>
<th>Floor Area (ft²)</th>
<th>0-1</th>
<th>2-3</th>
<th>4-5</th>
<th>6-7</th>
<th>&gt;7</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1500</td>
<td>30</td>
<td>45</td>
<td>60</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td>1501-3000</td>
<td>45</td>
<td>60</td>
<td>75</td>
<td>90</td>
<td>105</td>
</tr>
<tr>
<td>3001-4500</td>
<td>60</td>
<td>75</td>
<td>90</td>
<td>105</td>
<td>120</td>
</tr>
<tr>
<td>4501-6000</td>
<td>75</td>
<td>90</td>
<td>105</td>
<td>120</td>
<td>135</td>
</tr>
<tr>
<td>6001-7500</td>
<td>90</td>
<td>105</td>
<td>120</td>
<td>135</td>
<td>150</td>
</tr>
<tr>
<td>&gt;7500</td>
<td>105</td>
<td>120</td>
<td>135</td>
<td>150</td>
<td>165</td>
</tr>
</tbody>
</table>

Ventilation rates in table are minimum outdoor airflow rates measured in cfm.

UPC 604.8 Tracer Wire. Approved plastic materials for water service piping outside underground shall have a blue insulated copper tracer wire or other approved conductor installed adjacent to the piping. Access shall be provided to the tracer wire or the tracer wire shall terminate above ground at each end of the nonmetallic piping. The tracer wire size shall be not less than 18AWG and the insulation shall be suitable for burial.

UPC 609.10 Water Hammer. Building water supply systems where quick-acting valves are installed shall be provided with water hammer arrestor(s) to absorb high pressure resulting from the quick closing of these valves. Water hammer arrestors shall be approved mechanical devices and be installed as close as possible to quick acting valves.
2006 ENERGY CODE

Table 5-1 Component Performance Method:
Climate Zone 1: Target window U-factor changed to 0.35; Target wall U-factor changed to 0.057

Single Rafter Joist or Joist Vaulted Ceiling. Table 5-1 footnote 3 & table 6-1 footnote 3 has an exception for the R-38 insulation requirement. Exception allows R-30 for up to 500 sq. ft. only when there is less than 12-inches between the top of the ceiling and the underside of the roof sheathing and there is a minimum 1-inch vented airspace above the insulation. The remaining vaulted ceiling shall comply with the “ceiling “ requirements.

502.4.4 Recessed Lighting is required to be Type IC rated and certified under ASTM E283. Fixtures shall be installed with a gasket or caulk between the fixture and ceiling to prevent air leakage.

503.2.2 Prescriptive Space Heating System Sizing. Size limited to 150% of heating load as calculated per 503.2 and 503.2.1.

505.3 Outdoor Lighting. High efficiency lighting or controls required for all permanently mounted outdoor lighting. High efficiency typically refers to a pin based compact fluorescent fixture.

   Exception: 1. Permanently installed outdoor luminaries that are not high efficacy shall be allowed provided they are controlled by a motion sensor(s) with integral photocontrol photosensor. A motion sensor + photo daylight control may be used instead.

   2. Permanently installed luminaries in or around swimming pools and water features.

505.4 Linear Fluorescent Fixtures. Linear fluorescent fixtures must be fitted with T-8 or smaller lamps (but not T-10 or T-12)

Table 6-1 Building Envelope Prescriptive Requirements:
Climate Zone 1:
Option I, the U-factor for windows changed to 0.32 (Glazing limited to 10% of floor area)
Option II, the U-factor for windows changed to 0.35
Option IV, the U-factor for windows changed to 0.35

VENTILATION

All the ventilation requirements that were previously in the Washington State Ventilation and Indoor Air Quality Code are now in the 2009 IRC.